

9) Solve each inequality.

a) $3t + 7 > t + 1$ (add a graph for this one)

$$2t > -6$$

$$t > -3$$



b) $5 \leq 1 - 2x \leq 9$

$$4 \leq -2x \leq 8$$

$$\frac{4}{-2} \geq x \geq \frac{8}{-2}$$

$$-2 \geq x \geq -4$$

turn around

$$-4 \leq x \leq -2$$

c) $|3x + 1| \geq 2$

$$3x + 1 \geq 2$$

OR

$$3x + 1 \leq -2$$

$$3x \geq 1$$

OR

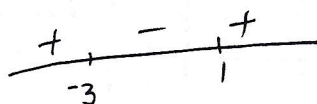
$$3x \leq -3$$

$$x \geq \frac{1}{3}$$

$$x \leq -1$$

d) $x^2 + 2x - 3 \leq 0$

$$(x + 3)(x - 1) \leq 0$$



solution

$$[-3, 1]$$

check

$$x = -4$$

$$x = 0$$

$$x = 2$$

$$(-1)(-5) = 5 > 0$$

$$(3)(-1) = -3 < 0$$

$$(5)(1) = 5 > 0$$